

REMARKS

Claims 1, 6, 13 and 16 have been amended. Claim 19-21 have been added. Claims 1-8 and 13-21 remain for further consideration. No new matter has been added.

The objections and rejections shall be taken up in the order presented in the Official Action.

1-2. Claims 1-3, 6-8 and 13-15 currently stand rejected for allegedly being anticipated by the subject matter disclosed in U.S. Patent 6,344,385 to Jun et al (hereinafter "Jun").

As amended claim 1 recites an electrostatic discharge protective device that includes:

"said second region being doped with a doped second conduction type, wherein said electrostatic discharge protective structure is located between the first and second potential busses and drains off an overvoltage pulse to one of the first and second potential busses, wherein said laterally formed electrostatic discharge diode includes a gate electrode located between said first region and said second region, said first region being separated from said second region by a distance that is equal to a width dimension of the gate electrode, where said gate electrode and said second region are both connected to the second supply potential." (emphasis added, cl. 1).

Claim 1 has been amended to now recite that the gate electrode and the second region are both connected to the second supply potential. There is no teaching in Jun of a gate electrode and a second region both connected to the second supply potential. As shown in FIGs. 3A and 5A of Jun, the gate 35 is connected to a first end of an RC network, while the second end of the RC network is connected to Ground. Referring still to FIGs. 3A and 5A of Jun, the p+ implant 36 in Jun is connected Ground. Thus, a fair and proper reading of Jun reveals that this prior art reference clearly discloses connecting the gate 35 and the p+ implant 36 to different potentials. In fact, Jun specifically teaches that a voltage should be coupled to the gate 35 (see col., 4, lines 16-2). Accordingly, it is respectfully submitted that Jun is incapable of anticipating the subject matter of

claim 1, since Jun fails to disclose at least the feature of “*where said gate electrode and said second region are both connected to the second supply potential.*” (cl. 1).

Claim 13

Claim 13 recites an integrated circuit with electrostatic discharge protection, comprising, inter alia, “*(iii) a gate electrode having a width W and located between said first and second regions such that said first and second regions are separated by the width W, where said gate electrode and said second region are both connected to the same electrical potential.*” (emphasis added). As set forth in the preceding paragraph regarding claim 1, Jun neither discloses nor suggests the feature that the gate electrode and the second region are both connected to the same electrical potential. Jun discloses that the gate 35 is connected to a RC circuit, while the p+ region 36 is connected to ground. Therefore, it is respectfully submitted that Jun is incapable of anticipating the subject matter of the present invention.

Claim 16

As amended claim 16 recites an integrated circuit with electrostatic discharge protection, including inter alia:

“(iv) a second electrode in communication with said second doped region, said second electrode being coupled to the second voltage bus;

(v) an insulator located between said first and second electrodes, and having an insulator dimension that is equal to the distance between said first and second regions; and

(vi) a gate electrode in communication with and contiguous with said insulator and having a width equal to the width separating the first doped region and the second doped region, where said gate electrode is also connected to said second voltage bus.” (emphasis added, cl. 16)

As set forth above, Jun neither discloses (nor suggests) that the second electrode/second doped region AND the gate electrode are both connected to the second voltage bus. Accordingly, it is respectfully submitted that Jun is incapable of anticipating the subject matter recited in claim 16.

3-4. Claim 4 currently stands rejected for allegedly being obvious in view of Jun.

Claim 4 is a dependent claim that depends indirectly from independent claim 1. It is respectfully submitted that this rejection is now moot since claim 1 is patentable for at least the reasons set forth above.

5. Claim 5 currently stands rejected for allegedly being obvious in view of the combined subject matter disclosed in Jun and U.S. Patent 6,060,752 to Williams (hereinafter "Williams").

Claim 5 is a dependent claim that depends indirectly from independent claim 1. It is respectfully submitted that this rejection is now moot since claim 1 is patentable for at least the reasons set forth above.

6. Claims 16-18 currently stand rejected for allegedly being obvious in view of the combined subject matter disclosed in Jun and Voldman.

As amended claim 16 recites an integrated circuit with electrostatic discharge protection, including inter alia:

"(iv) a second electrode in communication with said second doped region, said second electrode being coupled to the second voltage bus;

(v) an insulator located between said first and second electrodes, and having an insulator dimension that is equal to the distance between said first and second regions; and

(vi) a gate electrode in communication with and contiguous with said insulator and having a width equal to the width separating the first doped region and the second doped region, where said gate electrode is also connected to said second voltage bus." (emphasis added, cl. 16).

As set forth above with respect to the rejection of claim 16 in view of Jun, a fair and proper reading of Jun neither discloses nor suggests the feature of the second doped region and the second electrode

being coupled to the second voltage bus. Similarly, Voldman neither discloses nor suggests such a feature. Accordingly, assuming for the moment without admitting that Jun and Voldman are even properly combinable, it is respectfully submitted that the combined teachings of Jun and Voldman fail to disclose the claimed feature of the second doped region and the second electrode being coupled to the second voltage bus.

For all the foregoing reasons, reconsideration and allowance of claims 1-8 and 13-21 is respectfully requested.

If a telephone interview could assist in the prosecution of this application, please call the undersigned attorney.

Respectfully submitted,



Patrick J. O'Shea
Registration No. 35,305
O'Shea, Getz & Kosakowski, P.C.
1500 Main Street, Suite 912
Springfield, Massachusetts 01115
Telephone: (413) 731-3100 x102